

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Claims:

Please substitute the following claims 37, 43, 59, 65, 80, 86, 94 and 107 for the pending claims 37, 43, 59, 65, 80, 86, 94 and 107:

37.(Twice amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 21, and wherein said amino acid sequence is selected from a member of the group consisting of SEQ ID Nos. 2, 3, 4, 5, 6, 7 and 8.

43.(Twice amended) An isolated polynucleotide encoding a glucuronyl C5-epimerase capable of converting D-glucuronic acid to L-iduronic acid and which hybridizes under the conditions of incubation at 65° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to a polynucleotide encoding a polypeptide selected from the group consisting of:

(a) amino acids 1 to 45 of SEQ ID NO: 13;

- (b) amino acids 25 to 45 of SEQ ID NO: 13;
- (c) amino acids 74 to 86 of SEQ ID NO: 13;
- (d) amino acids 77 to 97 of SEQ ID NO: 13;
- (e) amino acids 25 to 444 of SEQ ID NO: 13;
- (f) amino acids 1 to 444 of SEQ ID NO: 13;
- (g) SEQ ID NO: 2;
- (h) SEQ ID NO: 3;
- (i) SEQ ID NO: 4;
- (j) SEQ ID NO: 5;
- (k) SEQ ID NO: 6;
- (l) SEQ ID NO: 7 and
- (m) SEQ ID NO: 8.

59.(Twice amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 43, and wherein said amino acid sequence is selected from a member of the group consisting of SEQ ID Nos. 2, 3, 4, 5, 6, 7 and 8.

65.(Twice amended) An isolated polynucleotide, or an isolated complementary polynucleotide, which encodes a polypeptide having glucuronyl C5-epimerase activity and capable of converting D-glucuronic acid to L-iduronic acid, and which hybridizes under the conditions of incubation at 65° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA,

followed by washing in 2x SSC and 0.5% SDS at 42° C, to said isolated polynucleotide selected from the group consisting of:

- (a) nucleotides 73 to 207 of SEQ ID NO: 12;
- (b) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (c) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (d) nucleotides 145 to 207 of SEQ ID NO: 12;
- (e) nucleotides 292 to 329 of SEQ ID NO: 12;
- (f) nucleotides 301 to 362 of SEQ ID NO: 12;
- (g) nucleotides 145 to 1404 of SEQ ID NO: 12;
- (h) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (i) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (j) nucleotides 1 to 3085 of SEQ ID NO: 12.

80.(Twice amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 65, and wherein said polynucleotide sequence is selected from a member of the group consisting of

- (j) nucleotides 73 to 207 of SEQ ID NO: 12;
- (b) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (c) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (d) nucleotides 145 to 207 of SEQ ID NO: 12;
- (e) nucleotides 292 to 329 of SEQ ID NO: 12;
- (f) nucleotides 301 to 362 of SEQ ID NO: 12;
- (g) nucleotides 145 to 1404 of SEQ ID NO: 12;

- (h) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (i) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (j) nucleotides 1 to 3085 of SEQ ID NO: 12.

86.(Twice amended) An isolated polynucleotide which encodes a polypeptide having glucuronyl C5-epimerase activity and capable of converting D-glucuronic acid to L-iduronic acid, or an isolated complementary polynucleotide, which hybridizes under the conditions of incubation at 65° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to said isolated polynucleotide or its complement, selected from the group consisting of:

- (a) SEQ ID NO: 9;
- (b) SEQ ID NO: 10 and
- (c) SEQ ID NO: 11.

94.(Twice amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 86, and wherein said polynucleotide sequence is selected from a member of the group consisting of SEQ ID Nos: 9, 10 and 11.

107.(once amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 103 and having glucuronyl C5-epimerase activity and capable of converting D-glucuronic acid to L-iduronic acid.